REMARKS

Claims 1, 3-12, 14-19 and 21 are pending in this application. Claims 9-12, 14-19 and 21 have been withdrawn from consideration. Claims 1 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which application regards as the invention. Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kamikawa (USP 5,369,891). Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yagi et al. (USP 6,473,993) in view of Kamikawa.

In claims 1 and 6, the term "fed-in fluid" has been removed. The term "fed-in fluid" refers to dry fluid, in a stage where it is freshly supplied from a source before being subjected to the conditioning steps of the claimed method. (See the last paragraph of page 9 and the first paragraph of page 5 of the specification). To reflect this, the pre-cooling of the fluid has been formulated as a separate step, inserted after the initial step of preparing the space and wafer/hybrid holding device.

The feature that the fluid is conducted into the wafer/hybrid holding device from outside the space via a first line has been moved in front of the step of conducting the fluid through the wafer/hybrid holding device. Also, the conduction via the first line is to the heat exchanger. For example, Fig. 3 shows the first line r2 to run from the heat exchanger 95 to the wafer/hybrid holding device 10. The fluid is referred to as "precooled fluid" because the dry fluid after having been fed in is subsequently pre-cooled by the heat exchanger such that the fluid leaving the heat exchanger and entering the first line is in a pre-cooled state. (See also page 6, lines 23 to 24 of the specification).

The feature that at least a portion of the fluid having left the wafer/hybrid holding device is temperature-regulated has been reformulated as a step, combining it with the feature that the temperature regulation is effected by using the fluid for the pre-cooling in the heat exchanger.

The feature of conducting the portion outside the space has been moved as a separate step before the step of temperature regulation, stating specifically that the conduction is to the heat exchanger via a second line. See line r3, i3 in Fig. 3 and page 9, lines 32 to 35 of the specification. The feature that the portion is used to condition the atmosphere in the space has been connected with the step of allowing the portion to flow out within the space. See page 10, lines 4 to 7.

Amendments to independent claim 6 follow corresponding amendments to claim 1.

Claims 1 and 6 as amended are essentially directed to a dry fluid being supplied is pre-cooled in a heat exchanger before being fed into the wafer/hybrid holding device through a first line, the fluid leaving the wafer/hybrid holding device undergoing a heat-exchange process in the heat exchanger in which it is temperature-regulated by being used for the pre-cooling of the supplied fluid, before being allowed to flow out within the space surrounding the wafer/hybrid holding device. Herein, the use of the second line enables to conduct the fluid having lefi the wafer/hybrid holding device back to the heat exchanger outside the space while keeping it separate from the space. Thus, the use of the second line prevents the portion of the fluid passing through it from flowing out within the space before it has reached the heat exchanger to effect the precooling of the supplied fluid. In this way, the dry, pre-cooled fluid used for temperature regulating the

wafer/hybrid holding device is reused in a two fold way. Firstly, its coolness is utilized in the heat exchanger for the pre-cooling of the supplied fluid in a heat-exchange process. Secondly, its dryness is utilized for conditioning the atmosphere within the space. Thus, the two separate tasks of providing a cool wafer/hybrid holding device and a dry atmosphere surrounding it can be performed with only a small amount of energy.

The features as claimed in claims 1 and 6 are neither disclosed or rendered obvious by the cited references.

US 5,369,891 discloses a method for drying semiconductor wafers in which a plurality of wafers are arranged vertically on a horizontal boat 25 inside a case 20. Dry gas is supplied through pipes 33 into the case such that it flows out within the case and is exhausted through slits 30. There is no teaching of pre-cooling the supplied dry gas in a heat exchanger before conducting it into the case 20 nor of reusing the gas exhausted through the slits 30 in any way. Instead, US 5,369,891 in column 3, lines 36 to 38 suggests to connect the slits to an exhaust duct in the factory. Even assuming arguments, a skilled person would consider extracting heat contained in the exhausted gas in a heat exchanger for heating freshly supplied dry gas (which is not taught nor suggested), he would not be motivated nor able to further reuse the exhausted gas for conditioning the atmosphere in the case since the exhausted gas is no longer dry, having flown out in the space surrounding the wet wafers before.

US 5,396,891 in column 4, lines 32 to 60 discloses coolant pipes 24, 23b. However, conventional cooling water is taught to circulate in these pipes, and there is no suggestion of using such pipes e.g. for pre-cooling the dry gas supplied through the gas supply pipes 33. Moreover, since US 6,473,993 does not disclose the use of a heat

exchanger at all. Accordingly, it is believed that claims 1 and 6 are patentable over the cited prior art.

Applicants submit that the application is hereby placed in condition for allowance which action is earnestly solicited.

Respectfully submitted,

By: _____

Frank Chau
Reg. No. 34,136
Attorney for Applicant(s)

F. CHAU & ASSOCIATES, LLC
130 Woodbury Rd.
Woodbury, NY 11797
Tel: (516) 692-8888
FAX: (516) 692-8889